

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Arthur Marshall STONEHAM et al. : **Mail Stop: PCT**  
Serial No. NEW : Attorney Docket No. 2004\_1367A  
Filed September 3, 2004 :  
A GATE FOR INFORMATION PROCESSING  
[Corresponding to PCT/GB03/00896  
Filed March 3, 2003] THE COMMISSIONER IS AUTHORIZED  
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ACCOUNT NO. 23-0975

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☐ each U.S. Patent and U.S. Patent application publication (*for U.S. National applications filed after June 30, 2003 and International applications that have entered U.S. National Stage after June 30, 2003*),
- ☐ each reference previously cited in the international application PCT/\_\_\_\_\_; and/or
- ☐ each reference previously cited in prior parent application Serial No. \_\_\_\_\_.

1a. [X] This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, **or**

ATTACHMENT "C"

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

**and thus no certification and/or fee is required.**

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and**

**the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.
4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
  - b. ☐ a foreign patent office search report (in the English language) submitted herewith,
  - c. ☐ the concise explanation contained in the specification of the present application at page,
  - d. ☐ the concise explanation set forth in the attached English language abstract,
  - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☒ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Arthur Marshall STONEHAM et al.

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FORM PTO 1449 (modified)

ATTY DOCKET NO.  
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NEW

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U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: September 3, 2004

APPLICANT  
Arthur Marshall STONEHAM et al.FILING DATE  
September 3, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ	00/30255	5/2000	WO			
	AK						
	AL						
	AM						
	AN						

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AO	Kane, B.E., entitled " <u>Silicon-based Quantum Computation</u> ", FORTSCHRITTE DE PHYSIK 2000, [Online], vol. 48, no. 9-11, 2000, pages 1023-1041, XP002902896.
	AP	Loss, D., et al., entitled " <u>Quantum Computation with Quantum Dots</u> ", Physical Review, A. (Atomic, Molecular and Optical Physics) American Institute of Physics. New York, US, vol. 57, no. 1, January 1998, page 120-126, XP000907148.
	AQ	Nilsson, M., et al., entitled " <u>Initial Experiments Concerning Quantum Information Processing in Rare-earth-ion Doped Crystals</u> ", Proceedings of the Nobel Jubilee Symposium: Condensation and Coherence in Condensed Matter, [Online] vol. 102, 4 December 2001, 7 December 2001, pages 178-185, XP002902897.

EXAMINER

DATE CONSIDERED